

## **Claims**

What is claimed is:

1. A method of manufacturing a decorative tile set of decorative tiles for installation adjacent preexisting standard stock tiles, the decorative tiles having opposing upper and lower surfaces bounded by interlocking edges, the method comprising:
  - a. for each decorative tile within the decorative tile set, defining a tile boundary at the upper surface of the decorative tile, wherein the decorative tiles within the decorative tile set are adjacently situated at the tile boundaries;
  - b. providing a bed having an upper bed surface;
  - c. providing atop the bed a workpiece from which the decorative tiles within the decorative tile set are to be cut;
  - d. cutting the workpiece on the bed along tile blank boundaries which are coincident with or outside the tile boundaries, thereby producing tile blanks, the tile blanks having upper surfaces corresponding to the upper surfaces of the decorative tiles;
  - e. cutting:
    - (1) male interlocking structure on selected tile blanks, the male interlocking structure being defined in portions of these tile blanks within the tile blank boundaries and outside the tile boundaries, and
    - (2) female interlocking structure on selected tile blanks, the female interlocking structure being defined in portions of these tile blanks within their tile blank boundaries and their tile boundaries;

2. The method of claim 1 further comprising the step of situating the upper surfaces of the tile blanks in abutment with the bed during cutting of the male and female interlocking structure.
- 5           3. The method of claim 2 wherein the bed provides a vacuum force to the upper surfaces of the tile blanks during cutting of the male and female interlocking structure.
- 10           4. The method of claim 2 wherein the bed is porous and is situated between the upper surfaces of the tile blanks and a machine bed associated with a cutting tool, and wherein the machine bed provides vacuum to the bed.
- 15           5. The method of claim 1 further comprising the step of securing the upper surfaces of the tile blanks in abutment with the bed during cutting of the male and female interlocking structure.
- 20           6. The method of claim 1 wherein the cutting of the male and female interlocking structure is performed by a cutting tool which extends through the plane of the upper bed surface.
7. The method of claim 6 wherein the upper bed surface has trenches defined therein into which the cutting tool extends during cutting of the male and female interlocking structure.
- 25           8. The method of claim 6 wherein the upper surfaces of the tile blanks are secured in abutment with the upper bed surface.

9. The method of claim 6 wherein the upper surfaces of the tile blanks are secured in abutment with the upper bed surface by a vacuum.
- 5 10. The method of claim 1 wherein the bed has trenches defined therein, the trenches defining areas on the upper bed surface which at least substantially correspond to the tile boundaries.
- 10 11. The method of claim 10 wherein the cutting of the male and female interlocking structure is performed by a cutting tool which extends into the trenches of the bed.
- 15 12. The method of claim 11 wherein the upper surfaces of the tile blanks are secured in abutment with the upper bed surface by a vacuum.
13. The method of claim 10 further comprising the step of securing the upper surfaces of the tile blanks in abutment with the upper bed surface during cutting of the male and female interlocking structure.
- 20 14. The method of claim 1 further comprising the step of cutting trenches in the bed, the trenches defining areas on the upper bed surface which at least substantially correspond to the tile boundaries.
15. The method of claim 14 further comprising the step of securing the upper surfaces of the tile blanks in abutment with the bed during cutting of the male and female interlocking structure.
- 25 16. The method of claim 15 wherein the upper surfaces of the tile blanks are secured in abutment with the bed by a vacuum.

17. The method of claim 1 wherein:
- the bed has trenches defined therein, the trenches defining areas on the upper bed surface which at least substantially correspond to the tile boundaries, and
  - the cutting of the male and female interlocking structure is performed by a cutting tool which extends into the trenches of the bed.
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18. The method of claim 17 further comprising the step of securing the upper surfaces of the tile blanks in abutment with the bed during cutting of the male and female interlocking structure.
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19. The method of claim 18 wherein the upper surfaces of the tile blanks are secured in abutment with the bed by a vacuum.
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20. The method of claim 1 further comprising the step of installing the decorative tile set alongside the standard stock tiles, wherein at least some of the decorative tiles within the decorative tile set are in interlocking abutment with the standard stock tiles.
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21. The method of claim 1 further comprising the step of installing the decorative tile set within a field of previously installed standard stock tiles, the step further including the substeps of:
- removing selected previously installed standard stock tiles, and
  - inserting the decorative tile set within the space previously occupied by the selected previously installed standard stock tiles, with at least some of the decorative tiles within the decorative tile set being in interlocking abutment with adjacent previously installed standard stock tiles.
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22. A method of manufacturing a decorative tile set of decorative tiles for installation adjacent preexisting standard stock tiles, the decorative tiles having opposing upper and lower surfaces bounded by interlocking edges, the method comprising:
- a. for each decorative tile within the decorative tile set, defining a tile boundary at the upper surface of the decorative tile, wherein the decorative tiles within the decorative tile set are adjacently situated at the tile boundaries;
  - b. providing a bed having an upper bed surface with trenches defined therein, the trenches defining areas on the upper bed surface which at least substantially correspond to the tile boundaries;
  - c. providing atop the bed a workpiece from which the decorative tiles within the decorative tile set are to be cut, the workpiece having an upper surface corresponding to the upper surfaces of the decorative tiles in the tile set;
  - d. cutting the workpiece to produce tile blanks having tile blank boundaries situated at or outside the tile boundaries;
  - e. cutting at least one of male interlocking structure and female interlocking structure in each tile blank, wherein the cutting of the interlocking structure on each tile blank:
    - (1) conforms the tile blank's upper surface to correspond to the tile boundaries therein, and
    - (2) is performed by a cutting tool which extends into the trenches in the bed.
23. The method of claim 22 wherein the upper surface of the workpiece is situated in abutment with the bed.

24. The method of claim 23 wherein the bed exerts an attractive vacuum force on the upper surface of the workpiece.
- 5           25. The method of claim 24 wherein:
- the bed is porous, and
  - the attractive vacuum force is exerted through the bed by a machine bed associated with a cutting tool.
- 10           26. The method of claim 22 wherein the upper surface of the workpiece is affixed in abutment with the bed.
- 15           27. The method of claim 22 further comprising the step of installing the decorative tile set alongside the standard stock tiles, wherein at least some of the decorative tiles within the decorative tile set are in interlocking abutment with the standard stock tiles.
- 20           28. The method of claim 22 further comprising the step of installing the decorative tile set within a field of previously installed standard stock tiles, the step further including the substeps of:
- removing selected previously installed standard stock tiles, and
  - inserting the decorative tile set within the space previously occupied by the selected previously installed standard stock tiles, with at least some of the decorative tiles within the decorative tile set being in interlocking abutment with adjacent previously installed standard stock tiles.
- 25           29. A method of manufacturing a decorative tile set of decorative tiles for installation.

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adjacent preexisting standard stock tiles, the decorative tiles having opposing upper and lower surfaces bounded by interlocking edges, the method comprising:

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- a. for each decorative tile within the decorative tile set, defining a tile boundary at the upper surface of the decorative tile, wherein the decorative tiles within the decorative tile set are adjacently situated at the tile boundaries;
  - b. providing a bed having an upper bed surface with trenches defined therein;
  - c. providing atop the upper bed surface and trenches a workpiece from which the decorative tiles within the decorative tile set are to be cut;
  - d. cutting the workpiece to produce the decorative tiles, each decorative tile having:
    - (1) its upper surface bounded by its tile boundary, and
    - (2) its interlocking edges including at least one of male interlocking structure and female interlocking structure,
- 15 wherein the cutting of the workpiece is performed by a cutting tool which extends into the trenches in the bed.

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30. The method of claim 29 wherein:

- a. the workpiece has an upper surface corresponding to the upper surfaces of the decorative tiles in the tile set, and
- b. the upper surface of the workpiece is situated in abutment with the upper bed surface during cutting.

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31. The method of claim 30 wherein the upper surface of the workpiece is secured in abutment with the upper bed surface during cutting.

32. The method of claim 31 wherein the upper surface of the workpiece is secured in abutment with the upper bed surface by a vacuum.

5           33. The method of claim 32 wherein the upper bed surface is porous.

10           34. The method of claim 29 further comprising the step of installing the decorative tile set simultaneously with the installation of the standard stock tiles, wherein at least some of the decorative tiles within the decorative tile set are in interlocking abutment with the standard stock tiles.

15           35. The method of claim 29 further comprising the step of installing the decorative tile set within a field of previously installed standard stock tiles, the step further including the substeps of:

a. removing selected standard stock tiles, and

b. inserting the decorative tile set within the space previously occupied by the selected standard stock tiles, with at least some of the decorative tiles within the decorative tile set being in interlocking abutment with adjacent standard stock tiles.

36. A method of manufacturing a decorative tile set of decorative tiles for installation adjacent preexisting standard stock tiles, the decorative tiles having opposing upper and lower surfaces bounded by interlocking edges, the method comprising:
- a. for each decorative tile within the decorative tile set, defining a tile boundary at the upper surface of the decorative tile, wherein the decorative tiles within the decorative tile set are adjacently situated at the tile boundaries;
  - b. providing a bed having an upper bed surface;
  - c. providing atop the upper bed surface and trenches a workpiece from which the decorative tiles within the decorative tile set are to be cut, the workpiece having an upper surface corresponding to the upper surfaces of the decorative tiles in the tile set, wherein the upper surface of the workpiece rests in abutment with the upper bed surface;
  - d. cutting the workpiece to produce the decorative tiles, each decorative tile having:
    - (1) its upper surface bounded by its tile boundary, and
    - (2) its interlocking edges including at least one of male interlocking structure and female interlocking structure,wherein the cutting of the workpiece is performed by a cutting tool which extends into the plane of the upper bed surface.
37. The method of claim 36 wherein the upper surface of the workpiece is secured in abutment with the upper bed surface during cutting.
38. The method of claim 37 wherein the upper surface of the workpiece is secured in abutment with the upper bed surface by a vacuum.

39. The method of claim 38 wherein the upper bed surface is porous.
40. The method of claim 36 further comprising the step of installing the decorative tile set simultaneously with the installation of the standard stock tiles, wherein at least some of the decorative tiles within the decorative tile set are in interlocking abutment with the standard stock tiles.